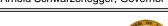
#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014355

Address: 333 Burma Road **Date Inspected:** 20-May-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG Segment** 

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 8BW/8CW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as EP063-001-014. The welder is identified as #048696 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-B-U2-F.

Segment 8BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA049-005. The welder is identified as #066413 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

(CJP) weld joint. The Weld joint is designated as CA049-006. The welder is identified as #037743 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA050-002. The welder is identified as #066038 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG045A-012. The welder is identified as #068097 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

## Segment 8CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA053-005. The welder is identified as #066413 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA053-006. The welder is identified as #037743 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG047B-049. The welder is identified as #068097 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG047-043. The welder is identified as #066038 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

### Segment 8CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG048B-047. The welder is identified as #053609 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-B-U2-F.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG048B-048. The welder is identified as #053742 and was observed

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-B-U2-F.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG048B-029. The welder is identified as #049769 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

## Segment 8AW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the Longitudinal Diaphragm flange to Floor Beam web CJP weld, panel point 61 west cross beam side.

This QA Inspector observed match drilling of Deck Plate U ribs for bolted splice plate connection.

ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

## Segment 8BW/8CW

This QA Inspector performed Ultrasonic Testing (UT) of approximately 15% of the area previously tested and accepted by ZPMC UT personnel. The following items were tested:

Buttered Floor Beam Stiffener at Longitudinal Diaphragm flange at panel point 65 east, panel point 66 to 70 east and west, counter weight side.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer